c1 cont'd

c) a film-forming, non-ionic graft copolymer binder comprising a hydrophobic backbone and non-ionic, hydrophilic side chains, said side chains having a number average molecular weight of at least 500, wherein the graft copolymer binder is soluble in the vehicle but substantially insoluble in water.

Claim 12 (Amended). An washfast ink composition for use in printing of textiles, comprising:

a) an aqueous vehicle comprising water and at least one co-solvent, wherein water comprises no more than 80% by weight of the total weight of the vehicle;

c2

b) [a colorant] a pigment dispersion comprising a pigment and a polymeric dispersant; and

c) a film forming, non-ionic graft copolymer binder comprising a hydrophobic backbone and non-ionic, hydrophilic side chains, said side chains having a number average molecular weight of at least 500, wherein the graft copolymer is soluble in the vehicle but substantially insoluble in water.

REMARKS

The claims are 6-12. Claims 1-5 have been canceled without prejudice. Claims 6 and 12 have been amended to more clearly recite the invention in a preferred form. the specification has been amended to update the reference to the co-pending application. No new matter is raised.

Rejections under 35 USC §102(e)

The Office has rejected claims 1-7 and 9-11 under 35 USC §102(e) as anticipated by Ma et al., European Patent Application 0 826 751. The rejection is improper on its face and is respectfully traversed. 35 USC §102(e) states:

> A person shall be entitled to a patent unless
>
> (e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by applicant for patent, or

The Ma reference is not a patent granted in the United States and is not a patent at all. Rather, the Ma reference is merely a publication of a patent application filed in the European Patent Office. Thus, this reference fails to meet any of the requirements of 35 USC §102(e).

Further, the Office rejection also fails because the Ma reference fails to teach or disclose all of the features of the present invention as recited in the claims. In particular, the present claims recite a composition containing a pigment, a polymer dispersant and the film-forming non-ionic graft copolymer binders. Ma fails to teach or disclose this combination of features. Rather, the graft copolymers of Ma are used as the dispersant, not as a film-forming binder as recited in the present claims. Thus, even if the Ma reference were to qualify as prior art under some subsection of 35 USC §102, the rejection would nonetheless fail because Ma does not anticipate the presently claimed invention. Reconsideration and withdrawal of the rejection under 35 USC §102(e) is respectfully solicited.

Rejections Under 35 USC §103(a)

The Office has rejected claims 3 and 10 as obvious over Ma in view of Satake. Claim 8 is rejected as obvious over Ma in view of Ma 698 and Yamashita. Claim 12 is rejected as obvious over Held in view of Ma. Applicants submit that each rejection is improper and fundamentally flawed. Applicants will address each combination in turn.

Ma and Satake

Ma teaches aqueous dispersions containing an insoluble particle, such as a pigment, and a graft copolymer dispersant. Satake teaches an ink jet ink composition comprising an aqueous medium, a pigment and a core/shell dispersant polymer. Applicants stress that the polymers taught by Ma and Satake are specifically described and claimed as dispersants. The graft copolymers of the present invention are not dispersants and do not function as dispersants. They are film forming binders. Dispersants and binders are recognized by those skilled in the art as being separate and distinct classes of polymers. They differ not only in name, but in structure and function.

Neither Ma nor Satake teaches or discloses the use of a film-forming, non-ionic graft copolymer binder in their respective compositions. Accordingly, even if the teachings of these references were combined, they would still fail to meet the features of the presently claimed invention. With respect to the Office contention regarding the use vinyl pyrrolidone monomers in Ma's copolymers, Applicants submit that the combination is irrelevant in light of the claimed invention. Even if the Office were justified in making the combination of teachings, the result would be a graft copolymer dispersant containing the vinyl monomers, not a film forming binder. Indeed, since both references teach dispersants, there is no basis at all for the supposed motivation to use the vinyl pyrrolidone monomers in film forming, non-ionic graft copolymer binders.

Ma, Ma '698 and Yamashita

The respective teachings of Ma '698 and Yamashita of using glycol ether solvents in the aqueous ink vehicle and using fluorinated surfactants are noted. However, Applicants submit that the combination of references, even if proper, fails to meet the features of the presently claimed invention for the reasons noted above. In particular, the combination of Yamashita's surfactant and Ma '698's glycol ethers with Ma's ink fails to teach or suggest an aqueous composition containing a film-forming, non-ionic graft copolymer binder in addition to a pigment, a dispersant and an aqueous vehicle as claimed.

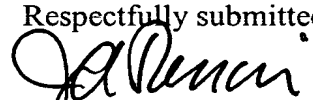
Held and Ma

Held teaches an ink/textile combination in which the ink contains a cross-linkable polymer and the textile is treated with a cross-linking agent. After printing the ink on the textile, cross linking is initiated by an external energy source to produce cross-linked images. Ma's disclosure is recited above. The combination effected by the Office, assuming it is proper, is insufficient to create a *prima facie* obviousness rejection. Held teaches that the cross-linkable polymer can be present in the ink as either a dispersant or a binder. The important feature here is that the polymer contain moieties which will react with the crosslinking agent in the textile. The form of the polymer, be it random, block, graft, etc, is of secondary importance.

There are several flaws in the combination effected by the Office. First, there is no disclosure or suggestion in Ma that the graft copolymer dispersants will cross-link with the cross-linking agents described in Held. Absent such a teaching, it would not be readily apparent to the skilled artisan to use the graft copolymer dispersants of Ma in Held's inks. Second, even if such graft copolymers were used, the resulting ink would fail to meet the limitations of the claimed invention. Nowhere would the combination of teachings disclose or suggest a composition comprising an aqueous vehicle, a pigment, a dispersant and a film-forming non-ionic graft copolymer as required by the claims under prosecution.

In view of the foregoing, the combination of features recited in the present claims is not disclosed, taught or suggested by the references of record. For these reasons, reconsideration and withdrawal of all rejections are respectfully solicited and allowance of the above-referenced application is respectfully requested.

Respectfully submitted,



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